

WHAT IS CLAIMED IS:

AS) 1. A lighting apparatus comprising a light source for emitting light, and a linear photoconductor for reflecting the light incident on a plurality of light reflection portions formed on a reflection side from the light source, and causing the light to exit linearly from an exit side opposed to the reflection side,

planes of the plurality of light reflection portions being tilted at angles which converge the light to the human eyes watching.

2. A lighting apparatus comprising a light source for emitting light, and a linear photoconductor for reflecting the light incident on a plurality of light reflection portions formed on a reflection side from the light source, and causing the light to exit linearly from an exit side opposed to the reflection side,

planes of the plural light reflection portions are respectively tilted so that the light exit substantially vertically to the longitudinal direction of the linear photoconductor.

3. A lighting apparatus according to claim 1,
wherein

the plural light reflection portions are same V-shaped grooves one planes of which are the planes of the light reflection portions.

4. A lighting apparatus according to claim 2,
wherein

the plural light reflection portions are same V-shaped grooves one planes of which are the planes of the light reflection portions.

5. A lighting apparatus according to claim 1,
wherein

the linear photoconductor is longitudinally divided in a plural regions; and

in each divided region, the planes of the plural light reflection portions are tilted at the same angle.

6. A lighting apparatus according to claim 2,
wherein

the linear photoconductor is longitudinally divided in a plural regions; and

in each divided region, the planes of the plural light reflection portions are tilted at the same angle.

7. A lighting apparatus according to claim 5,
wherein

the planes of the plural light reflection portions are tilted at the same angles in a region containing the

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center of the linear photoconductor and in the regions near the ends of the linear photoconductor.

8. A lighting apparatus according to claim 6,
wherein

the planes of the plural light reflection portions are tilted at the same angles in a region containing the center of the linear photoconductor and in the regions near the ends of the linear photoconductor.

9. A lighting apparatus according to claim 5,
wherein

in a first longitudinally divided region of the linear photoconductor, the planes of the light reflection portions are tilted equally at a first angle;

in a second region adjacent to the first region, the planes of the light reflection portions are tilted equally at a second angle which is different from the first angle; and

in a region near the border between the first region and the second region, the light reflection portions having the planes tilted at the first angle and the light reflection portions having the planes tilted at the second angle are mixed.

10. A lighting apparatus according to claim 6,
wherein

in a first longitudinally divided region of the linear photoconductor, the planes of the light reflection portions are tilted equally at a first angle;

in a second region adjacent to the first region, the planes of the light reflection portions are tilted equally at a second angle which is different from the first angle; and

in a region near the border between the first region and the second region, the light reflection portions having the planes tilted at the first angle and the light reflection portions having the planes tilted at the second angle are mixed.

11. A lighting apparatus according to claim 1, wherein

the linear photoconductor are divided in a plurality of regions vertically to the longitudinal direction; and

in each divided region, the planes of the plural light reflection portions are tilted at the same angle.

12. A lighting apparatus according to claim 2, wherein

the linear photoconductor are divided in a plurality of regions vertically to the longitudinal direction; and

in each divided region, the planes of the plural light reflection portions are tilted at the same angle.

13. A lighting apparatus according to claim 1,
wherein

the light reflection portions are extended obliquely
to the longitudinal direction of the linear
photoconductor.

14. A lighting apparatus according to claim 2,
wherein

the light reflection portions are extended obliquely
to the longitudinal direction of the linear
photoconductor.

15. A lighting apparatus according to claim 1,
wherein

the planes of the plural light reflection portions
are respectively tilted at angles which converge the
light emitted substantially from the center of the light
source to the human eyes watching.

16. A lighting apparatus according to claim 2,
wherein

the planes of the plural light reflection portions
are respectively tilted at angles which cause the light
emitted substantially from the center of the light source
to exit substantially vertically to the longitudinal
direction of the linear photoconductor.

17. A lighting apparatus according to claim 1,
further comprising

a surface photoconductor optically coupled to the linear photoconductor, for causing the light entering from the linear photoconductor to exit in plane.

18. A lighting apparatus according to claim 2, further comprising

a surface photoconductor optically coupled to the linear photoconductor, for causing the light entering from the linear photoconductor to exit in plane.

19. A lighting apparatus according to claim 1, wherein

the linear photoconductor has the reflection side curved.

20. A lighting apparatus according to claim 2, wherein

the linear photoconductor has the reflection side curved.

21. A lighting apparatus according to claim 1, wherein

a width of one planes of the light reflection portions, and a width of the other planes of the light reflection portions are different from each other.

22. A lighting apparatus according to claim 2, wherein

a width of one planes of the light reflection portions, and a width of the other planes of the light reflection portions are different from each other.

23. A lighting apparatus according to claim 1,
wherein

a reflection coat film is further formed on the reflection side of the linear photoconductor.

24. A lighting apparatus according to claim 2,
wherein

a reflection coat film is further formed on the reflection side of the linear photoconductor.

25. A lighting apparatus according to claim 1,
further comprising

reflection means provided on the reflection side of the linear photoconductor separately from the linear photoconductor.

26. A lighting apparatus according to claim 2,
further comprising

reflection means provided on the reflection side of the linear photoconductor separately from the linear photoconductor.

27. A lighting apparatus according to claim 1,
wherein

the linear photoconductor is formed substantially in a square pole.

28. A lighting apparatus according to claim 2,
wherein

the linear photoconductor is formed substantially in
a square pole.

29. A liquid crystal display comprising a lighting apparatus including a light source for emitting light, a linear photoconductor for reflecting light incident on a plurality of light reflection portions formed on the reflection side from the light source and causing the light to exit linearly from the exit side opposed to the reflection side, and a surface photoconductor optically coupled to the linear photoconductor and causing the light entering from the linear photoconductor to exit in plane; and a liquid crystal panel illuminated by the lighting apparatus,

planes of the plural light reflection portions being tilted at an angle which converges the light to the human eyes watching.

30. A liquid crystal display comprising a lighting apparatus including a light source for emitting light, a linear photoconductor for reflecting light incident on a plurality of light reflection portions formed on the reflection side from the light source and causing the light to exit linearly from the exit side opposed to the reflection side, and a surface photoconductor optically

coupled to the linear photoconductor and causing the light entering from the linear photoconductor to exit in plane; and a liquid crystal panel illuminated by the lighting apparatus,

planes of the plural light reflection portions being respectively tilted angles which cause the light to exit substantially vertically to the longitudinal direction of the linear photoconductor.

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